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-	14	auxiliary adj2 stack near8 second\$3	USPAT	2004/05/11 11:02
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-	2	(("5778224") or ("6578159")).PN.	USPAT	2004/09/24 09:17
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- 1 A wireless public access infrastructure for supporting mobile context-aware IPv6 applications**

Adrian Friday, Maomao Wu, Stefan Schmid, Joe Finney, Keith Cheverst, Nigel Davies
 July 2001 **Proceedings of the first workshop on Wireless mobile internet**

Full text available:  pdf(768.12 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper presents a novel wireless access point architecture designed to support the development of next generation mobile context-aware applications over metropolitan scale areas. In addition, once deployed, this network will allow ordinary citizens secure, accountable and convenient access to the Internet from their local city and campus environments.

The proposed architecture is based on an approach utilising a modified Mobile IPv6 protocol stack that uses packet marking ...

Keywords: authentication, mobile IPv6, public access point, security, wireless internet

- 2 Some measures and procedures for evaluation of the user interface in an information retrieval system**

J. Tague, R. Schultz

May 1988 **Proceedings of the 11th annual international ACM SIGIR conference on Research and development in information retrieval**

Full text available:  pdf(1.18 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Planning the evaluation of an information retrieval system involves two steps: first, a determination of performance descriptors and measures appropriate to the system objectives and, secondly, a development of an evaluation design which ensures the effect of variation in components of interest will be isolated and assessed in an unbiased fashion. This paper examines the question of retrieval system evaluation from the perspective of the user. It presents evaluation procedures which are app ...

- 3 Dynamics of IP traffic: a study of the role of variability and the impact of control**

Anja Feldmann, Anna C. Gilbert, Polly Huang, Walter Willinger

August 1999 **ACM SIGCOMM Computer Communication Review , Proceedings of the conference on Applications, technologies, architectures, and protocols for computer communication**, Volume 29 Issue 4

Full text available:  pdf(1.77 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Using the *ns-2*-simulator to experiment with different aspects of user- or session-behaviors and network configurations and focusing on the qualitative aspects of a wavelet-based scaling analysis, we present a systematic investigation into how and why variability and feedback-control contribute to the intriguing scaling properties observed in actual Internet traces (as our benchmark data, we use measured Internet traffic from an ISP). We illustrate how variability of both user aspects and ...

4 Revisitation patterns in World Wide Web navigation

Linda Tauscher, Saul Greenberg

March 1997 **Proceedings of the SIGCHI conference on Human factors in computing systems**

Full text available:  pdf(984.35 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: WWW, history mechanisms, hypertext, navigation, web

5 QoS of internet access with GPRS

Dirk Staehle, Kenji Leibnitz, Konstantin Tsipotis

May 2003 **Wireless Networks**, Volume 9 Issue 3

Full text available:  pdf(446.27 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In this paper we examine the effects of Internet traffic on the Quality of Service (QoS) in GPRS wireless networks. With a stochastic source traffic model describing the user behavior, we will derive subjective and objective Quality of Service measures in terms of WWW downloading time and the transmission bandwidths on TCP and TBF level. Comparing the obtained values with wireline network modems and ISDN yields a slowdown factor which indicates the subjective degradation that the wireless user e ...

Keywords: GPRS, Quality of Service, source traffic modeling, wireless internet access

6 A multi-user framework supporting video-based avatars

Peter Quax, Tom Jehaes, Pieter Jorissen, Wim Lamotte

May 2003 **Proceedings of the 2nd workshop on Network and system support for games**

Full text available:  pdf(924.00 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

In this paper we present our ongoing work in setting up a multi-user framework that supports video texturing on avatars, creating added value for both gaming and collaborative work applications. Limiting the data propagation and bandwidth usage is a key goal when targeting a scalable application that will be deployed on a general-purpose network such as the Internet. We therefore present a number of techniques that can be used in these circumstances, including increased client responsibilities a ...

7 ABLE: A LISP-based layout modeling language with user-definable procedural models for storage/logic array design

Gary B. Goates, Suhas S. Patil

June 1981 **Proceedings of the 18th conference on Design automation**

Full text available:  pdf(692.32 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

ABLE, an array-based linguistic editor, is a layout modeling language for storage/logic arrays (SLA's) that is based on the LISP programming language. This paper describes ABLE's design, presents an ABLE layout program, and evaluates ABLE's usefulness in SLA-based circuit design. ABLE embodies a linguistic approach to computer-aided design (CAD) for very large scale integrated (VLSI) circuits; digital system designers can represent SLA-based integrated circuits as relatively abstract and hi ...

8 An integrated system for creating and presenting complex computer-based documents

Steven Feiner, Sandor Nagy, Andries Van Dam

August 1981 **ACM SIGGRAPH Computer Graphics , Proceedings of the 8th annual conference on Computer graphics and interactive techniques**, Volume 15 Issue 3Full text available:  [pdf\(1.23 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

An experimental system is described for the design, development, and presentation of computer-based documents that combine pictures and text on a high-resolution raster color display. Such documents can be used, for example, for maintenance and repair tasks or computer-aided instruction. Documents are directed graphs whose nodes we refer to as pages, in analogy to the pages of a paper book. A page includes a set of simultaneously displayed pictur ...

Keywords: Computer aided instruction, Computer graphics, Interactive graphics, Maintenance and repair, Raster graphics

9 QoS of internet access with GPRS

Dirk Staehle, Kenji Leibnitz, Konstantin Tsipotis

July 2001 **Proceedings of the 4th ACM international workshop on Modeling, analysis and simulation of wireless and mobile systems**Full text available:  [pdf\(666.97 KB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In this paper we examine the effects of Internet traffic on the quality of service (QoS) in GPRS wireless networks. With a stochastic source traffic model describing the user behavior, we will derive subjective and objective quality of service measures in terms of WWW downloading time and the transmission bandwidths on TCP and TBF level. Comparing the obtained values with wireline network modems and ISDN yields a slowdown factor which indicates the subjective degradation that the wireless use ...

10 Multi-user interface for group ranking: user-centered analysis

Wai-Lan Luk, V. Srinivasan Rao

December 1993 **Proceedings of the conference on Organizational computing systems**Full text available:  [pdf\(793.46 KB\)](#)Additional Information: [full citation](#), [references](#), [index terms](#)

Keywords: computer supported cooperative work, human computer interaction, multi-user interface, user interface design

11 Alternative software architectures for parallel protocol execution with synchronous IPC

C. Murray Woodside, R. Greg Franks

April 1993 **IEEE/ACM Transactions on Networking (TON)**, Volume 1 Issue 2Full text available:  [pdf\(963.77 KB\)](#)Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)**12 Security on the move: indirect authentication using Kerberos**

Armando Fox, Steven D. Gribble

November 1996 **Proceedings of the 2nd annual international conference on Mobile computing and networking**Full-text available:  [pdf\(1.34 MB\)](#)Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)**13 Mobile games: A mobile gaming platform for the IMS**

Amjad Akkawi, Sibylle Schaller, Oliver Wellnitz, Lars Wolf
**August 2004 Proceedings of ACM SIGCOMM 2004 workshops on NetGames '04:
 Network and system support for games**

Full text available:  pdf(549.74 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Mobile devices offer the opportunity to play games nearly everywhere. Moreover, networked games allow individual players to interact with other people and to participate in a larger gaming world, which also provides for new business opportunities. Hence, we currently see an increased interest from game developers, providers and players in mobile games. In this paper we propose a novel architecture and platform for games on the IMS. This allows games to utilize the features and capabilities that ...

Keywords: IMS, mobile networked games, platform architecture

14 BlueSky: a cordless networking solution for palmtop computers

Pravin Bhagwat, Ibrahim Korpeoglu, Chatschik Bisdikian, Mahmoud Naghshineh, Satish K. Tripathi

August 1999 Proceedings of the 5th annual ACM/IEEE international conference on Mobile computing and networking

Full text available:  pdf(1.31 MB) Additional Information: [full citation](#), [references](#), [index terms](#)

15 RCBR: a simple and efficient service for multiple time-scale traffic

M. Grossglauser, S. Keshav, D. Tse

October 1995 ACM SIGCOMM Computer Communication Review , Proceedings of the conference on Applications, technologies, architectures, and protocols for computer communication, Volume 25 Issue 4

Full text available:  pdf(1.50 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Compressed video traffic is expected to be a significant component of the traffic mix in integrated services networks. This traffic is hard to manage, since it has strict delay and loss requirements, but at the same time, exhibits burstiness at multiple time-scales. In this paper, we observe that slow time-scale variations can cause sustained peaks in the source rate, substantially degrading performance. We use large deviation theory to study this problem and to motivate the design of Renegotiat ...

16 Mobility: Session level techniques for improving web browsing performance on wireless links

Pablo Rodriguez, Sarit Mukherjee, Sampath Ramgarajan

May 2004 Proceedings of the 13th international conference on World Wide Web

Full text available:  pdf(486.66 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Recent observations through experiments that we have performed in current third generation wireless networks have revealed that the achieved throughput over wireless links varies widely depending on the application. In particular, the throughput achieved by file transfer application (FTP) and web browsing application (HTTP) are quite different. The throughput achieved over a HTTP session is much lower than that achieved over an FTP session. The reason for the lower HTTP throughput is that the HTT ...

Keywords: optimizations, web, wireless

17 Marquee: a tool for real-time video logging

Karon Weher, Alex Poon

April 1994 Proceedings of the SIGCHI conference on Human factors in computing systems: celebrating interdependence

Full text available: Additional Information:

 pdf(876.45 KB)[full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: gestural interfaces, multimedia, penbased computing, user interfaces, user studies, video annotation, video indexing

18 User Recovery and Reversal in Interactive Systems 

James E. Archer, Richard Conway, Fred B. Schneider

January 1984 **ACM Transactions on Programming Languages and Systems (TOPLAS)**,

Volume 6 Issue 1

Full text available:  pdf(1.30 MB)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

19 Protocol service decomposition for high-performance networking 

Chris Maeda, Brian N. Bershad

December 1993 **ACM SIGOPS Operating Systems Review , Proceedings of the fourteenth ACM symposium on Operating systems principles**, Volume 27

Issue 5

Full text available:  pdf(1.22 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In this paper we describe a new approach to implementing network protocols that enables them to have high performance and high flexibility, while retaining complete conformity to existing application programming interfaces. The key insight behind our work is that an application's interface to the network is distinct and separable from its interface to the operating system. We have separated these interfaces for two protocol implementations, TCP/IP and UDP/IP, running on the Mach 3.0 operating sy ...

20 Security: Zero-interaction authentication 

Mark D. Corner, Brian D. Noble

September 2002 **Proceedings of the 8th annual international conference on Mobile computing and networking**

Full text available:  pdf(273.30 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Laptops are vulnerable to theft, greatly increasing the likelihood of exposing sensitive files. Unfortunately, storing data in a cryptographic file system does not fully address this problem. Such systems ask the user to imbue them with long-term authority for decryption, but that authority can be used by anyone who physically possesses the machine. Forcing the user to frequently reestablish his identity is intrusive, encouraging him to disable encryption. Our solution to this problem is Zero- ...

Keywords: cryptographic file systems, mobile computing, stackable file systems, transient authentication

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1 The multifrontal method and paging in sparse Cholesky factorization

Joseph W. H. Liu

December 1989 **ACM Transactions on Mathematical Software (TOMS)**, Volume 15 Issue 4

Full text available: pdf(1.20 MB)

Additional Information: full citation, abstract, references, citations, index terms, review

In this paper, we show that the multifrontal method can have significant advantage over the conventional sparse column-Cholesky scheme on a paged virtual memory system. A more than tenfold reduction in paging activities can be achieved, which saves as much as 20 percent in factorization time. We also introduce a hybrid sparse factorization method, which uses a mixture of column-Cholesky and submatrix-Cholesky operations. By switching to the use of frontal matrices from column-Cholesky opera ...

2 EPIC compilation: Optimization for the Intel® Itanium® architecture register stack

Alex Settle, Daniel A. Connors, Gerolf Hoflehner, Dan Lavery

March 2003 **Proceedings of the international symposium on Code generation and optimization: feedback-directed and runtime optimization**

Full text available: pdf(906.60 KB) Publisher Site Additional Information: full citation, abstract, references, citations, index terms

The Intel® Itanium® architecture contains a number of innovative compiler-controllable features designed to exploit instruction level parallelism. New code generation and optimization techniques are critical to the application of these features to improve processor performance. For instance, the Itanium® architecture provides a compiler-controllable virtual register stack to reduce the penalty of memory accesses associated with procedure calls. The Itanium® Register Stack Engine ...

3 Multi-stack optimization for data-path chip (microprocessor) layout

W. K. Luk, A. A. Dean

June 1989 **Proceedings of the 26th ACM/IEEE conference on Design automation**

Full text available: pdf(842.48 KB) Additional Information: full citation, abstract, references, citations, index terms

As data-path chips such as microprocessors and RISC chips become more complex, multiple stacks of data-path macros are required to implement the entire data-path. The physical decomposition of a chip into a single data-path stack, and control logic of random logic as in the past is not always feasible. This paper describes a special multi-stack structure, optimization techniques and algorithms to partition, place and wire the data-path macros in the form of the multi-stack structure, taking ...

4 List processing in real time on a serial computer

Henry G. Baker

April 1978 **Communications of the ACM**, Volume 21 Issue 4

Full text available:  pdf(1.55 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

A real-time list processing system is one in which the time required by the elementary list operations (e.g. CONS, CAR, CDR, RPLACA, RPLACD, EQ, and ATOM in LISP) is bounded by a (small) constant. Classical implementations of list processing systems lack this property because allocating a list cell from the heap may cause a garbage collection, which process requires time proportional to the heap size to finish. A real-time list processing system is presented which continuously reclaims garb ...

Keywords: CDR-coding, LISP, compacting, file or database management, garbage collection, list processing, real-time, reference counting, storage allocation, storage management, virtual memory

5 On the storage requirement in the out-of-core multifrontal method for sparse factorization

Joseph W. H. Liu

September 1986 **ACM Transactions on Mathematical Software (TOMS)**, Volume 12 Issue 3

Full text available:  pdf(1.13 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Two techniques are introduced to reduce the working storage requirement for the recent multifrontal method of Duff and Reid used in the sparse out-of-core factorization of symmetric matrices. For a given core size, the reduction in working storage allows some large problems to be solved without having to use auxiliary storage for the working arrays. Even if the working arrays exceed the core size, it will reduce the amount of input-output traffic necessary to manipulate the working vectors. ...

6 Pthreads for dynamic and irregular parallelism

Girija J. Narlikar, Guy E. Blelloch

November 1998 **Proceedings of the 1998 ACM/IEEE conference on Supercomputing (CDROM)**

Full text available:  html(82.60 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

High performance applications on shared memory machines have typically been written in a coarse grained style, with one heavyweight thread per processor. In comparison, programming with a large number of lightweight, parallel threads has several advantages, including simpler coding for programs with irregular and dynamic parallelism, and better adaptability to a changing number of processors. The programmer can express a new thread to execute each individual parallel task; the implementation dyn ...

Keywords: Pthreads, dynamic scheduling, irregular parallelism, lightweight threads, multithreading, space efficiency

7 Time/space tradeoffs for polygon mesh rendering

Reuven Bar-Yehuda, Craig Gotsman

April 1996 **ACM Transactions on Graphics (TOG)**, Volume 15 Issue 2

Full text available:  pdf(738.76 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

We investigate architectural schemes, generalizing that of existing graphics engines, supporting fast rendering of triangle meshes. A mesh defined on n vertices is rendered by sending vertices down a graphics pipeline, after which they are pushed on a stack to be popped when no longer needed. Only individual triangles whose vertices are present in the stack may be rendered. The storage cost of the mesh rendering is the size of the stack required to store mesh vertices durin ...

Keywords: graphics pipeline, polygons, rendering

8 A real-time garbage collector with low overhead and consistent utilization

David F. Bacon, Perry Cheng, V. T. Rajan

January 2003 **ACM SIGPLAN Notices , Proceedings of the 30th ACM SIGPLAN-SIGACT symposium on Principles of programming languages**, Volume 38 Issue 1

Full text available:  pdf(517.37 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Now that the use of garbage collection in languages like Java is becoming widely accepted due to the safety and software engineering benefits it provides, there is significant interest in applying garbage collection to hard real-time systems. Past approaches have generally suffered from one of two major flaws: either they were not provably real-time, or they imposed large space overheads to meet the real-time bounds. We present a mostly non-moving, dynamically defragmenting collector that overco ...

Keywords: defragmentation, read barrier, real-time scheduling, utilization

9 Static checking of interrupt-driven software

Dennis Brylow, Niels Damgaard, Jens Palsberg

July 2001 **Proceedings of the 23rd international conference on Software engineering**

Full text available:  pdf(157.76 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

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Resource-constrained devices are becoming ubiquitous. Examples include cell phones, palm pilots, and digital thermostats. It can be difficult to fit required functionality into such a device without sacrificing the simplicity and clarity of the software. Increasingly complex embedded systems require extensive brute-force testing, making development and maintenance costly. This is particularly true for system components that are written in assembly language. Static checking has the potential o ...

10 Performance measurement and trace driven simulation of parallel CAD and numeric applications on a hypercube multicomputer

Jiun-Ming Hsu, Prithviraj Banerjee

May 1990 **ACM SIGARCH Computer Architecture News , Proceedings of the 17th annual international symposium on Computer Architecture**, Volume 18 Issue 3

Full text available:  pdf(1.21 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper presents the performance evaluation, workload characterization and trace driven simulation of a hypercube multi-computer running realistic workloads. Six representative parallel applications were selected as benchmarks. Software monitoring techniques were then used to collect execution traces. Based on the measurement results, we investigated both the computation and communication behavior of these parallel programs, including CPU utilization, computation task granularity, messag ...

11 Comparing mostly-copying and mark-sweep conservative collection

Frederick Smith, Greg Morrisett

October 1998 **ACM SIGPLAN Notices , Proceedings of the first international symposium on Memory management**, Volume 34 Issue 3

Full text available:  pdf(1.52 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Many high-level language compilers generate C code and then invoke a C compiler for code generation. To date, most, of these compilers link the resulting code against a conservative mark-sweep garbage collector in order to reclaim unused memory. We introduce a new collector, MCC, based on an extension of *mostly-copying collection*. We analyze the various

design decisions made in MCC and provide a performance comparison to the most widely used conservative mark-sweep collector (the Boehm-Dem ...

12 Workload models of VBR video traffic and their use in resource allocation policies

Pietro Manzoni, Paolo Cremonesi, Giuseppe Serazzi

June 1999 **IEEE/ACM Transactions on Networking (TON)**, Volume 7 Issue 3

Full text available:  pdf(390.58 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



Keywords: burstiness, communication systems performance, delay-sensitive traffic, multimedia communication, networks

13 Speculative execution exception recovery using write-back suppression

Roger A. Bringmann, Scott A. Mahlke, Richard E. Hank, John C. Gyllenhaal, Wen-mei W. Hwu

December 1993 **Proceedings of the 26th annual international symposium on Microarchitecture**

Full text available:  pdf(1.22 MB) Additional Information: [full citation](#), [references](#), [citations](#)



Keywords: VLIW, exception detection, exception recovery, scheduling, speculative execution, superscalar

14 Using high performance GIS software to visualize data: a hands-on software demonstration

Linda Burton, William Hatchett, Mari Hobkirk, Charles Powell

November 1998 **Proceedings of the 1998 ACM/IEEE conference on Supercomputing (CDROM)**

Full text available:  html(80.49 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

Since 1995 Wheat Ridge High School (WRHS) students have participated in a mapping project involving local open space, in conjunction with NASA. Students have learned to use *Idrisi*, a Geographical Imaging Systems (GIS) software, as well as other GIS programs *Arc View* and *Multispec*, to plan the location of a trail along Colorado's front range. As this project has progressed, students have learned the GIS technology as well as many science issues related to trail mapping. Simila ...



15 Representing control in the presence of first-class continuations

R. Hieb, R. Kent Dybvig, Carl Bruggeman

June 1990 **ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 1990 conference on Programming language design and implementation**, Volume 25 Issue 6

Full text available:  pdf(1.25 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)



Languages such as Scheme and Smalltalk that provide continuations as first-class data objects present a challenge to efficient implementation. Allocating activation records in a heap has proven unsatisfactory because of increased frame linkage costs, increased garbage collection overhead, and decreased locality of reference. However, simply allocating activation records on a stack and copying them when a continuation is created results in unbounded copying overhead. This paper describes a n ...



16 Computer security (SEC): Java bytecode verification on Java cards

Roberto Barbuti, Stefano Cataudella

March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**

Full text available:  pdf(236.57 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)



A Java program is usually translated into an intermediate language, known as Java Virtual Machine Language (JVML), which is then executed by a Java Virtual Machine (JVM). Before its execution a JVML program is verified to prevent a wide range of run-time errors. Nowadays, Java applets are available for various kinds of portable devices, including modern Java smart cards. However, Java cards cannot execute the classical verification algorithms, due to their very small amount of working memory. We ...

Keywords: Java bytecode, Java card, abstract interpretation

17 Compiler support for software-based cache partitioning

Frank Mueller

November 1995 **ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 1995 workshop on Languages, compilers, & tools for real-time systems**, Volume 30 Issue 11

Full text available:  [pdf\(886.21 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Cache memories have become an essential part of modern processors to bridge the increasing gap between fast processors and slower main memory. Until recently, cache memories were thought to impose unpredictable execution time behavior for hard real-time systems. But recent results show that the speedup of caches can be exploited without a significant sacrifice of predictability. These results were obtained under the assumption that real-time tasks be scheduled **non-preemptively**. This paper ...

18 Allowing for ILP in an embedded Java processor

Ramesh Radhakrishnan, Deependra Talla, Lizy Kurian John

May 2000 **ACM SIGARCH Computer Architecture News , Proceedings of the 27th annual international symposium on Computer architecture**, Volume 28 Issue 2

Full text available:  [pdf\(293.70 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Java processors are ideal for embedded and network computing applications such as Internet TV's, set-top boxes, smart phones, and other consumer electronics applications. In this paper, we investigate cost-effective microarchitectural techniques to exploit parallelism in Java bytecode streams. Firstly, we propose the use of a fill unit that stores decoded bytecodes into a decoded bytecode cache. This mechanism improves the fetch and decode bandwidth of Java processors by 2 to 3 times ...

19 Logical, internal, and physical reference behavior in CODASYL database systems

Wolfgang Effelsberg, Mary E. S. Loomis

June 1984 **ACM Transactions on Database Systems (TODS)**, Volume 9 Issue 2

Full text available:  [pdf\(1.77 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

This work investigates one aspect of the performance of CODASYL database systems: the data reference behavior. We introduce a model of database traversals at three levels: the logical, internal, and physical levels. The mapping between the logical and internal levels is defined by the internal schema, whereas the mapping between the internal and the physical levels depends on cluster properties of the database. Our model explains the physical reference behavior for a given sequence of DML statements ...

20 A parallel, real-time garbage collector

Perry Cheng, Guy E. Blelloch

May 2001 **ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 2001 conference on Programming language design and implementation**, Volume 36 Issue 5

Full text available:  [pdf\(1.82 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We describe a parallel, real-time garbage collector and present experimental results that demonstrate good scalability and good real-time bounds. The collector is designed for

shared-memory multiprocessors and is based on an earlier collector algorithm [2], which provided fixed bounds on the time any thread must pause for collection. However, since our earlier algorithm was designed for simple analysis, it had some impractical features. This paper presents the extensions necessary for a pract ...

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1 Innovative stack-die package - S2BGA

Wu, L.; Wang, Y.P.; Hsiao, C.S.;
Electronic Components and Technology Conference, 2002. Proceedings. 52nd , 28-31 May 2002
Pages:250 - 253

[Abstract] [PDF Full-Text (641 KB)] IEEE CNF

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Lee, D.C.; Lough, D.L.; Midkiff, S.F.; Davis, N.J., IV; Benchoff, P.E.;
Network, IEEE , Volume: 12 , Issue: 1 , Jan.-Feb. 1998
Pages:28 - 33

[Abstract] [PDF Full-Text (768 KB)] IEEE JNL

3 New proposed adhesive tape application mechanism for stacking die applications

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Electronic Packaging Technology Proceedings, 2003. ICEPT2003. Fifth International Conference on , 28-30 Oct. 2003
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[Abstract] [PDF Full-Text (1663 KB)] IEEE CNF

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Matsumoto, S.; Xing Zhou Jin; Fukushima, T.; Miyamura, M.; Itatani, H.;
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[Abstract] [PDF Full-Text (720 KB)] IEEE CNF

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Sabouret, E.; Verhoeven, P.F.M.; Jongste, J.F.; Janssen, G.C.A.M.; Radelaar, S.;
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... memory, see <Note:1011658.6> Shared memory **requirement** on Unix. ... The **size** of PGA depends on the database ... with one **user** process, PGA contains **stack space** and UGA ...
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... The **user** cannot raise his **requirement** of system resources above such values ... **stack - max stack size** (KB ... are logged at the beginning and end of the **user's session** ...
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... framework can satisfy this **requirement** and simplify ... events published by other components in the **stack**. ... determined primarily by database **size**, traffic handled ...
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... The peak load **requirement** for a concurrent application is much ... more efficient (but loses the contextual **stack trace** ... Don't let your heap **size** become larger than ...
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 ... jsp:useBean id="foo" class="stack.FooBean" scope ... using java.io.ObjectOutput.writeObject()
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